

Application Number 10/730,873
Amendment Under 1.312 dated April 20, 2007

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AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0002] beginning at page 1, line 19 of the originally filed disclosure with the following paragraph:

[0002] The following co-pending and commonly-assigned U.S. Patent Applications, filed on even date herewith, are also incorporated herein by reference:

1. U.S. Patent Application Serial No. 10/731,869, entitled "MODULAR IMPLANTABLE MEDICAL DEVICE," to Wahlstrand et al., ~~assigned Attorney Docket No.: 1023-318US01/P-10891.00~~, filed December 9, 2003;
2. U.S. Patent Application Serial No. 10/731,868, entitled "IMPLANTATION OF LOW-PROFILE IMPLANTABLE MEDICAL DEVICE," to Singhal et al., ~~assigned Attorney Docket No.: 1023-330US01/P-11795.00~~, filed December 9, 2003;
3. U.S. Patent Application Serial No. 10/731,881, entitled "REDUCING RELATIVE INTERMODULE MOTION IN A DISTRIBUTED MODULAR IMPLANTABLE MEDICAL DEVICE," to Wahlstrand et al., ~~assigned Attorney Docket No.: 1023-331US01/P-11797.00~~, filed December 9, 2003;
4. U.S. Patent Application Serial No. 10/731,699, entitled "COUPLING MODULES OF A DISTRIBUTED MODULAR IMPLANTABLE MEDICAL DEVICE," to Janzig et al., ~~assigned Attorney Docket No.: 1023-333US01/P-11796.00~~, filed December 9, 2003;
5. U.S. Patent Application Serial No. 10/730,877, entitled "LOW-PROFILE IMPLANTABLE MEDICAL DEVICE," to Singhal Janzig et al., ~~assigned Attorney Docket No.: 1023-335US01/P-11801.00~~, filed December 9, 2003;
6. U.S. Patent Application Serial No. 10/731,867, entitled "CONCAVITY OF AN IMPLANTABLE MEDICAL DEVICE," to Wahlstrand et al., ~~assigned Attorney Docket No.: 1023-336US01/P-11800.00~~, filed December 9, 2003;
7. U.S. Patent Application Serial No. 10/730,878, entitled "LEAD INTERCONNECT CONNECTION MODULE OF A MODULAR IMPLANTABLE MEDICAL DEVICE," to Singhal et al., ~~assigned Attorney Docket No.: 1023-334US01/P-11799.00~~, filed December 9, 2003; and

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8. U.S. Patent Application Serial No. 10/731,638, entitled "MODULAR IMPLANTABLE MEDICAL DEVICE," to Wahlstrand et al., ~~assigned Attorney Docket No.: P-120542.00US~~, filed December 9, 2003.

Please replace paragraph [0041] beginning at page 10, line 3 of the originally filed disclosure with the following paragraph:

[0041] Additional details regarding modules 210, 211 and 212, additional or alternative modules for a modular implantable medical device, the interconnection of modules within a modular implantable medical device, and lead connection modules 213 may be found in commonly assigned U.S. Patent Application Ser. No. 10/731,869, entitled "MODULAR IMPLANTABLE MEDICAL DEVICE," ~~assigned Attorney Docket No.: 1023-318US01/P-10891.00~~; commonly assigned U.S. Patent Application Ser. No. 10/731,699, entitled "COUPLING MODULES OF A DISTRIBUTED MODULAR IMPLANTABLE MEDICAL DEVICE," ~~assigned Attorney Docket No.: 1023-333US01/P-11796.00~~; and commonly assigned U.S. Patent Application Ser. No. 10/730,878, entitled "LEAD INTERCONNECT CONNECTIONMODULE OF A MODULAR IMPLANTABLE MEDICAL DEVICE," ~~assigned Attorney Docket No.: 1023-334US01/P-11799.00~~.

Please replace paragraph [0043] beginning at page 10, line 3 of the originally filed disclosure with the following paragraph:

[0043] In some embodiments, overmold 214 may be curved to match the shape of the location within a patient in which the device is being implanted. For example, implantation of modular implantable medical device 201 under the scalp of a patient may be accomplished if overmold 214 is concave to substantially conform to the shape of the cranium of the patient. Concavity of modular implantable medical devices is described in greater detail in a commonly-assigned U.S. Patent Application Ser. No. 10/731,867, entitled "CONCAVITY OF AN IMPLANTABLE MEDICAL DEVICE[[.]]." ~~assigned Attorney Docket No.: 1023-336US01/P-11800.00~~. Any number of shapes may be used to match a particular implantable medical device 201 to an implantation location for a device.

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Please replace paragraph [0044] beginning at page 10, line 29 of the originally filed disclosure with the following paragraph:

[0044] Overmold 214 may comprise a solid biocompatible elastomeric material that is soft and flexible such as silicone. In some embodiments, overmold 214 comprises two or more materials, and two or more components. For example, overmold may comprise one or more elastomeric components formed of an elastomeric material, such as silicone, and one or more non-elastomeric components formed of a non-elastomeric material, such as polysulfone, or a polyurethane such as Tecothane®, which is commercially available from Hermedics Polymer Products, Wilmington, MA. The one or more elastomeric components may provide the overall shape and flexibility of modular implantable medical device 201, while the non-elastomeric components may provide structural integrity for modular implantable medical device 201, restrict intermodule motion within modular implantable medical device 201 to certain ranges, and form a part of the lead interconnection modules 213. Further detail regarding reduction of intermodule motion within modular implantable medical devices may be found in a commonly-assigned U.S. Patent Application Serial No. 10/731,881, entitled "REDUCING RELATIVE INTERMODULE MOTION IN A DISTRIBUTED MODULAR IMPLANTABLE MEDICAL DEVICE[[.]]." ~~assigned Attorney Docket No.: 1023-331US01/P-11797.00.~~

Please replace paragraph [0046] beginning at page 11, line 25 of the originally filed disclosure with the following paragraph:

[0046] In some embodiments, such as those illustrated in FIGS. 3A-C and 3E-F, an overmold 322 at least partially encapsulates each of modules 210, 211 and 212. In other embodiments, such as that illustrated in FIG. 3D, at least one of the modules of modular IMD 301 is located outside of overmold 322. Module 212 located outside of overmold may, as shown in FIG. 3D, be tethered to overmold 322, allowing module 212 to be freely positioned some significant distance from overmold 322. Additional details relating to configurations of modules within a modular implantable medical devices and tethering of modules of an implantable medical device may be found in a U.S. Patent Application Ser. No. 10/731,869, entitled "MODULAR IMPLANTABLE MEDICAL DEVICE[[.]]." ~~assigned Attorney Docket No.: 1023-318US01/P-10891.00.~~

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Please replace paragraph [0048] beginning at page 12, line 9 of the originally filed disclosure with the following paragraph:

[0048] Because overmold 422 and coupling module 423 are flexible, overmold 422 and coupling module 423 may not provide sufficient motion reduction for the modules 410-412. Specifically, excessive relative motion between modules 410 and 411 may compromise the structural integrity of coupling module 424, which may lead to failure of modular implantable medical device 401. Motion reduction elements 421 are used to provide sufficient structural integrity to the device 401 once implanted into the patient 100 by restricting relative motion between modules 410 and 411 to certain directions or within certain ranges. Additional details regarding motion reduction elements 421 are described in co-pending and commonly assigned U.S. Patent Application Serial No. 10/731,881, entitled "REDUCING RELATIVE INTERMODULE MOTION IN A MODULAR IMPLANTABLE MEDICAL DEVICE[[.]]." ~~assigned Attorney Docket No.: 1023-331US01 / P 11797.00.~~

Please replace paragraph [0061] beginning at page 16, line 4 of the originally filed disclosure with the following paragraph:

[0061] FIG. 6 is a schematic diagram illustrating degrees of intermodule motion that may be present in modular implantable medical device. For any two modules within a distributed medical device, motion between the two modules may include pitch motion 601, yaw motion 602, and roll motion 603. For the set of motion reduction elements 621 discussed above, one or more of these three degrees of motion may be limited to prevent mechanical failures of interconnections between the modules during use of a modular implantable medical device. Specifically, modules of a modular implantable medical device may be connected by connector modules, which may be compromised by excessive intermodule motion. Such interconnect members are described in greater detail in commonly assigned U.S. Patent Application Serial No. 10/731,881, entitled "REDUCING RELATIVE INTERMODULE MOTION IN A DISTRIBUTED MODULAR IMPLANTABLE MEDICAL DEVICE[[.]]." ~~assigned Attorney Docket No.: 1023-331US01/P 11797.00.~~

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Please replace paragraph [0065] beginning at page 17, line 5 of the originally filed disclosure with the following paragraph:

[0065] Additional details regarding the set of motion reduction elements 521 are described in co-pending and commonly assigned U.S. Patent Application Serial No. 10/731,881, entitled "REDUCING RELATIVE INTER[[]]MODULE MOTION IN A MODULAR IMPLANTABLE MEDICAL DEVICE[[.]]" assigned Attorney Docket No.: ~~1023-331US01 / P-11797.00.~~

Please replace paragraph [0068] beginning at page 18, line 5 of the originally filed disclosure with the following paragraph:

[0068] Additional details regarding the lead connection modules described in co-pending and commonly assigned U.S. Patent Application Serial No. 10/730,878, entitled "LEAD INTERCONNECT-CONNECTION MODULE OF A MODULAR IMPLANTABLE MEDICAL DEVICE[[.]]" assigned Attorney Docket No.: ~~1023-334US01 / P-11799.00.~~